



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/803,454

03/17/2004

Hajime Nishimura

16869P-108300US

5440

20350 7590 04/24/2007
TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

BIBBINS, LATANYA

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
----------------------------------------	-----------	---------------

3 MONTHS

04/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/803,454

Applicant(s)

NISHIMURA ET AL.

Examiner

LaTanya Bibbins

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In the remarks filed on February 1, 2007, Applicant amended claims 1, 4, and 6, cancelled and submitted arguments for allowability of pending claims 1-10.

Response to Arguments

2. Applicant's arguments filed February 1, 2007, with respect to claims 1-10, have been fully considered but they are not persuasive.

In regard to claims 1, 3, 6, and 8-10, which were rejected under 35 U.S.C. 102(e) as being anticipated by Shumura et al., Applicant argues that the temperature sensor of Shumura does not detect the temperature of an interior of the optical pickup and that the temperature sensor of Shumura is used for a different purpose than in the recited claims.

However, as cited in the Office Action, Shumura discloses a temperature sensor which detects a temperature of optical reading part constituted by a laser diode and a photodetector, particularly a temperature in the vicinity of the laser diode (column 4 lines 17-22). Since the optical reading part (or optical pickup) is composed of both the laser diode and photo detector and the temperature is detected "in the vicinity of the laser diode," then the temperature sensor is thus detecting the temperature of an interior of the optical reading part (or optical pickup).

In response to applicant's argument that the temperature sensor of the Shumura reference is used for a different purpose than in the recited claims, a recitation of the intended use of the claimed invention must result in a structural difference between the

claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In regard to claims 2, 5, and 7, which were rejected under 35 U.S.C. 103(a) as unpatentable over Shumura et al. and further in view of Kondo, Applicant argues that Shumura fails to teach or suggest a temperature sensor configured to detect temperature of an interior of the pickup of the optical disc device and a system controller configured to determine data recording properties of the optical disc, to control the drive circuit in accordance with the temperature detected by the temperature sensor, and to control the rotational speed of the optical disc based on the detected temperature and the determined data recording properties of the optical disc. Applicant further argues that the Kondo reference does not overcome the deficiencies of the Shumura reference and that the Kondo reference does not teach or suggest that the system controller controls the rotational speed of the disk based on a detected temperature from a temperature sensor and determined data recording properties of the optical disc (which may be stored in a pre-compiled table).

However, as discussed above, since the optical reading part (or optical pickup) is composed of both the laser diode and photo detector and the temperature is detected "in the vicinity of the laser diode," then the temperature sensor is thus detecting the temperature of an interior of the optical reading part (or optical pickup). In addition, as cited in the Office Action, Shumura does in fact disclose a system controller which determines data recording properties of the disc, to control the drive current in

accordance with the temperature detected by the temperature sensor, and to control the rotational speed of the optical disc based on the detected temperature and the determined data recording properties (see the discussion of how the controller determines data recording properties or "writing conditions" such as recording time and address etc. and how the controller stops the recording, the recording speed equals zero, when the detected temperature exceeds a temperature range; refer to column 9 lines 15-18 and column 7 lines 20-26). Further, in response to applicant's argument that the references fail to show that the data may be stored in a pre-compiled table, it is noted that the feature upon which applicant relies (i.e., the pre-compiled table) is not recited in the rejected claims 2, 5 or 7. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In regard to claim 4, which was rejected under 35 U.S.C. as being unpatentable over Shumura et al. and further in view of Sugita et al., Applicant argues that the Shumura and the Sugita reference do not teach or suggest a temperature sensor configured to detect temperature of an interior of the pickup of the optical disc device and a system controller configured to determine data recording properties of the optical disc, to control the drive circuit in accordance with the temperature detected by the temperature sensor, and to control the rotational speed of the optical disc based on the detected temperature and the determined data recording properties of the optical disc.

However, as discussed above, since the optical reading part (or optical pickup) is composed of both the laser diode and photo detector and the temperature is detected

"in the vicinity of the laser diode," then the temperature sensor is thus detecting the temperature of an interior of the optical reading part (or optical pickup). In addition, as cited in the Office Action, Shumura does in fact disclose a system controller which determines data recording properties of the disc, to control the drive current in accordance with the temperature detected by the temperature sensor, and to control the rotational speed of the optical disc based on the detected temperature and the determined data recording properties (see the discussion of how the controller determines data recording properties or "writing conditions" such as recording time and address etc. and how the controller stops the recording, the recording speed equals zero, when the detected temperature exceeds a temperature range; refer to column 9 lines 15-18 and column 7 lines 20-26).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 3 recites the limitation "the data recording speed." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 6, and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Shumura et al. (US Patent Number 6,738,330 B2).

Regarding claim 1, an optical disc device (Figure 1) comprising: a pickup having a semiconductor laser for providing a laser beam for recording of data on an optical disc (column 4 line 28 and Figure 1 element 16); a motor coupled to rotate the optical disc (the spindle motor in column 6 line 59); a movement mechanism configured to move the pickup in a radial direction of the optical disc (the servo mechanism in column 6 line 60); a system controller (Figure 1 element 10) configured to control the pickup by supplying drive current to the semiconductor laser (column 6 lines 61 and 62) and to control rotational speed of the optical disc (column 6 line 56); and a temperature sensor (Figure 1 element 14) configured to detect temperature of an interior of the pickup (column 4 lines 17-22 and column 6 lines 49-52); wherein the system controller determines data recording properties of the optical disc (see the discussion of how the controller determines data recording properties or "writing conditions" such as recording time and address etc., in column 9 lines 15-18) and controls the drive current in accordance with the temperature detected by the temperature sensor (column 6 lines 55-62) and controls the rotational speed of the optical disc based on the detected temperature and the determined data recording properties of the optical disc (the controller stops the

Art Unit: 2627

recording, the recording speed equals zero, when the detected temperature exceeds a temperature range column 7 lines 20, 21 and 25 and 26).

Regarding claim 3, the optical disc device wherein the system controller comprises a table for setting the data recording speed onto the optical disc, the table containing the detected temperature and the data recording properties of the disc as parameters (see the description of the ROM table in column 4 lines 6-8 and column 7 lines 6-10).

Regarding claim 6, a method of data recording of an optical disc device comprising: rotating an optical disc (the spindle motor in column 6 line 59); recording data by directing a laser beam onto the optical disc (column 6 lines 61-64); detecting temperature of an interior region of a pickup having a semiconductor laser providing a laser beam for recording of data on the optical disc device (column 4 lines 17-22 and column 6 lines 49-52); controlling drive current to the semiconductor laser based on the detected temperature (column 6 lines 55-62); determining data recording properties of the optical disc (see the discussion of how the controller determines data recording properties or "writing conditions" such as recording time and address etc., in column 9 lines 15-18); and setting the rotational speed of the optical disc based on the detected temperature and the determined data recording properties of the optical disc (the controller stops the recording when the detected temperature exceeds a temperature range column 7 lines 20,21 and 25 and 26).

Regarding claim 8, the method of data recording of an optical disc device wherein setting of the rotational speed of the optical disc is performed prior to recording

data onto the optical disc (see column 6 lines 43-64 where the recording starts, the disc begins to rotate, and then information is recorded when laser beams irradiate the surface of the disc).

Regarding claim 9, Shumura discloses a method of data recording of an optical disc device wherein setting of the rotational speed of the optical disc is performed after recording data onto the optical disc (see column 7 lines 20-26 where the recording operation is stopped, the rotation speed equals zero, when the temperature exceeds a range and after recording was already performed).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shumura et al. (US Patent Number 6,738,330 B2), as applied to claims 1 and 6 above, and further in view of Kondo (US Patent Number 5,561,644).**

Regarding claim 2, Shumura teaches an optical disc device (Figure 1) wherein the system controller determines the data recording properties of the optical disc (see the discussion of how the controller determines data recording properties or "writing conditions" such as recording time and address etc., in column 9 lines 15-18) but fails to teach that the data recording properties are based on information recorded in an inner

circumferential section of the optical disc. Kondo on the other hand teaches a an optical disc apparatus wherein the system controller determines the data recording properties of the optical disc based on information recorded in an inner circumferential section of the optical disc (see column 6 lines 64 and 65 and column 2 lines 59-62 where the system controller determines the type of disk).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system controller in the optical disc device of Shumura to include the ability to determine the data recording properties of the optical disc based on the TOC as taught by Kondo. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings in order to quickly and easily determine data recording properties by accessing the inner portion of the disc.

Regarding claim 5, Shumura teaches an optical disc with data recording properties, however the data recording properties do not include either the type of the optical disc, information regarding the manufacturer of the optical disc, information regarding the laser power needed for recording, and information regarding the rotational speed of the optical disc. Kondo, on the other hand, teaches an optical disc with data recording properties which include the type of the optical disc (see column 6 lines 64 and 65 and column 2 lines 59-62 where the system controller determines the type of disk).

Claims 7 and 10 are drawn to the method of using the corresponding apparatus claimed in claims 2 and 5 respectively. Therefore method claims 7 and 10 correspond

Art Unit: 2627

to apparatus claims 2 and 5 and are rejected for the same reason of obviousness as used above.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shumura et al. (US Patent Number 6,738,330 B2) as applied to claim 1 above, and further in view of Sugita et al. (US Patent Number 5,311,494).

Regarding claim 4, Shumura discloses an optical disc (Figure 1) device but fails to disclose the dimensions of the optical disc device. Sugita, however, teaches an optical disk apparatus wherein the dimension of the optical disc device in the thickness direction thereof is no more than 10 mm (see column 21 line 68 and column 22 lines 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical disc device of Shumura to have a thickness in accordance with the optical disk apparatus of Sugita. One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings so that "the optical disc apparatus can be used in lap-top type or notebook-type personal computers and workstations" (Sugita column 22 lines 3-5).

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2627

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LaTanya Bibbins



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER